

# Algebra 1B Unit 09: Sequences and Series

Content Area: **Math**  
Course(s): **Algebra I B**  
Time Period: **Semester 2**  
Length: **4 cycles**  
Status: **Published**

## Unit Introduction

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## Standards

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MA.F-IF.A.3	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.
MA.A-SSE.B.4	Derive and/or explain the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems.

## Essential Questions

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- How can you represent the terms of a sequence explicitly? How can you represent them recursively?
- What are equivalent explicit and recursive definitions for an arithmetic sequence?

## Content

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- Arithmetic Sequences
- Arithmetic Series
- Geometric Sequences
- Geometric Series
- Mathematical Patterns

## Skills

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- Find common difference of an arithmetic sequence
- Find the common ratio of a geometric sequence
- Identify mathematical patterns
- Identifying geometric sequences
- Write a recursive formula
- Write an explicit formula

